ISIS - Feature #4476

Modify pixel2map to handle a full FOV option

2016-10-18 01:20 PM - Jean Backer

Status:	Resolved		
Priority:	Normal		
Assignee:	Jean Backer		
Category:	Applications		
Target version:	3.5.0 (FY17 R1 2017-01-25 Jan)		
Impact:	This change will have no known impact on current ISIS programs. A new parameter has been added to pixel2map to add functionality.	**Software Version:**	

Description

In order to get the true FOV for cameras such as DAWN VIR, we will add functionality to pixel2map.

In order to add this feature, the following modifications will be made to ISIS:

1. Add virtual bool CameraDetectorMap::exposureDuration(const double line, const double sample, const double band = 1) const.
2. Add virtual bool Camera::SetImage(const double sample, const double line, const double deltaT) where deltaT is the number of seconds from the middle of the exposure time.
3. Add virtual bool CameraDetectorMap::SetParent(const double sample, const double line, const double &deltaT) where deltaT is the number of sections from the middle of the exposure time.
4. Refactor PixelIFov to handle crossing 0/360 longitude, crossing poles.
5. Rename PixelIFov to PixelFOV, a class that can create an FOV from a single moment in time (PixelIFov's current behavior) or can create an FOV from a series of IFOV footprints.
6. Add new functionality to pixel2map to allow user to choose to use multiple IFOVs rather than the default behaviour of a single IFOV at center exposure time.

History

#1 - 2016-11-01 06:05 PM - Jean Backer

- Status changed from In Progress to Resolved

- Impact updated

#2 - 2016-11-01 06:11 PM - Jean Backer

- Description updated